US Army Corps of Engineers
Office of the Chief of Engineers

Design and Environmental Awards 1981

Winners of the 1981 U.S. Army Corps of Engineers Design and Environmental Awards competition were announced Dec. 9 in Washington, D.C.

Twenty-one Corps of Engineers projects were selected by juries of distinguished professionals in the respective fields.

Recently completed civil works and military construction projects were eligible for entry in four competition categories: architecture, engineering, landscape architecture and environmental. Entries judged worthy of national recognition received one of three awards: honor award, award of merit or honorable mention. There were 114 Corps projects worldwide entered in the 1981 competition.

The Chief of Engineers' Design and Environmental Awards program was begun in 1965 to recognize excellence in design and environmental achievement related to recently completed structures or areas developed by the Corps of Engineers and their consulting firms.

The program is part of the U.S. Army's support of the Federa1 Design Improvement Program and is intended to provide an incentive for design and environmental professionals to develop projects which exhibit excellence in function, economy, resource conservation, aesthetics and creativity, while being in harmony with the environment.

Design and Environmental Awards 1981 was edited by 2nd Lt. Lawrence Quinnett.

Landscape Architecture

Honor Award: McGillivray Campground, located within the Kootenai National Forest, Libby, Mont. is a recreational site on Lake Koocanusa.

The design agency is the US. Forest Service. The supervising and construction agency is the Corps of Engineers' Seattle district.

Jurors comments: The buildings are designed to fit easily into the altered environment with good structure scale. The swim beach is well adapted to the site.

Award of Merit: The McCall Hatchery in McCall, Idaho, designed by the firm of CH2M Hill Inc. of Boise, Idaho, fits into the Douglas Fir-studded landscape to the satisfaction of fishery biologists who termed the $3.9 million complex "one of the most modern in the country."

The design agency and owner is the Corps of Engineers' Walla Walla district.

Jurors comments: An unusual facility that is well designed for the site where it is located among existing residences. The use of native plant materials indicates a concern for future maintenance.

Honorable Mentions: The Lake Sonoma Overlook, designed by the firm of Royston, Hanamoto, Alley and Abey of Mill Valley, Calif., consists of a viewing plaza adjacent to an existing parking lot and features an arbor to shield visitors from the sun.

Design agency and owner of the project is the Corps of Engineers' San Francisco district. Other California-based consultant firms are The Promontory Partnership of Palo Alto, Richard W. Mayne of Sausalito, and Creegan and D'Angelo of San Jose.

Jurors comments: A handsome, rich development of a rugged site. Key-hole viewing for the handicapped and small children is an excellent idea.

Honor Award: McGillivray Campground

The Emergency Water Pumping Station, designed by the firms of Paul Spreiregen of Washington, D.C., and Black and Veatch of Kansas City, MO., provides supplemental water supply to Washington, D.C.

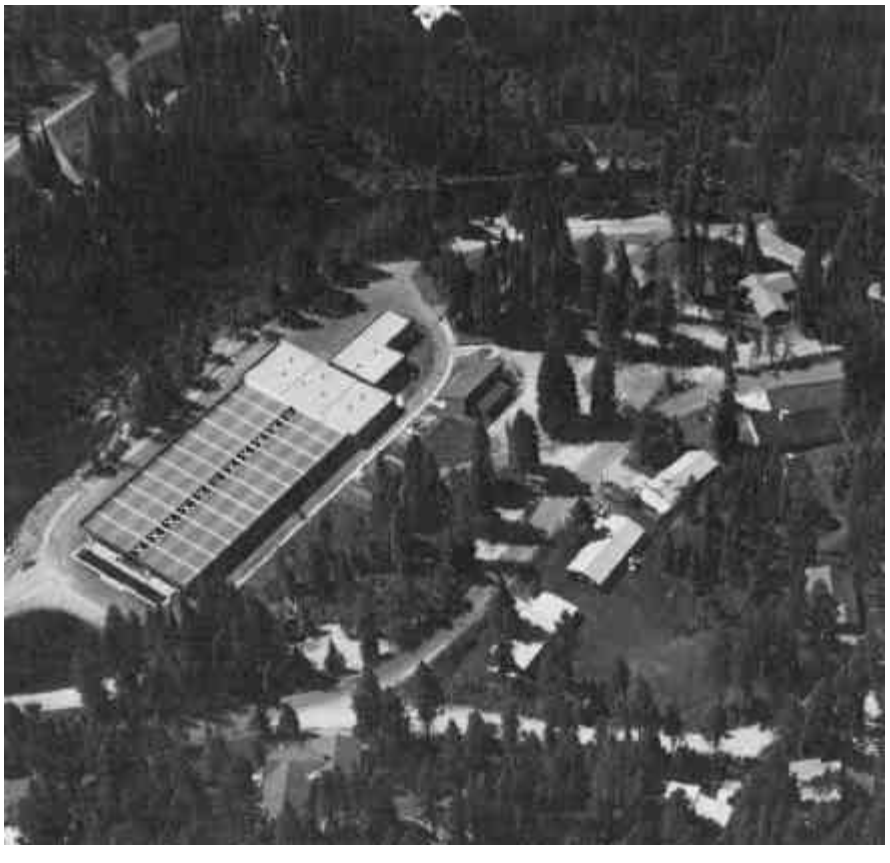
The design agency and owner of the project, completed Oct. 26, 1978, is the Corps of Engineers' Baltimore district.

Jurors' comments: A simple dignified solution. It shows the good use of a landscape material other than plants.

Jurors: Calvin T. Bishop, president of the American Society of Landscape Architects, served as a member of the Houston Chamber of Commerce.

Carol R. Johnson, principal and founder of the firm Carol R. Johnson and Associates Inc., has taught at Harvard Graduate School of Design.

John W. Bright is assistant manager of the Denver Service Center, National Park Service.



Award of Merit: McCall Hatchery

Environmental

Honor Award: The Confined Disposal Facility and Fresh Water Marsh Restoration at Pointe Mouillee, Mich., was designed by the Corps of Engineers' Detroit district along with the Michigan Department of Natural Resources.

Jurors comments: The replacement of a barrier beach will help establish a marsh.

Awards of Merit: The Environmental Notch Program was designed by the Corps of Engineers' Omaha district.

Jurors comments: The program provided a good water exchange in slack water areas.

The Little Goose Juvenile Fish Bypass Facility, located in Snake River, Wash., was designed by Kramer, Chin and Mayo Inc. The design and supervising agency of the facility is the Corps of Engineers' Walla Walla district.

Jurors comments: The system appears to have substantially reduced juvenile salmonid mortality.

The Ethnobotanical Mitigation Program of Warm Springs Dam-Lake Sonoma Project, located in Sonoma County, Calif., was designed by the Sonoma State University Academic Foundation Inc. of Rohnert Park, Calif. The design and supervising agency is the Corps of Engineers' San Francisco district.

Jurors comments: A program was initiated so that the supply of basket roots would be at the same level they were prior to dam construction.

Honorable Mentions: The Wastewater Land Treatment System at North Marcum Access Area is located at the Rend Lake project in southern Illinois.

The system was designed and supervised by the Corps of Engineers' St. Louis district.

Jurors comments: Land treatment of waste water is often the most environmentally sound and economically feasible alternative.

The Modular Refuse-Fired Steam Plant in Fort Eustis, Va., was designed by Vansant and Gusler Inc. The design agency is the Corps of Engineers' Norfolk district.

Jurors comments: An excellent example of dispensing of waste products and producing steam for station requirements which result in a saving of fossil fuel.

The Jean Pierre Chouteau National Recreation Trail was designed by the Corps of Engineers' Tulsa district.

Jurors comments: An excellent example of utilizing volunteer help.

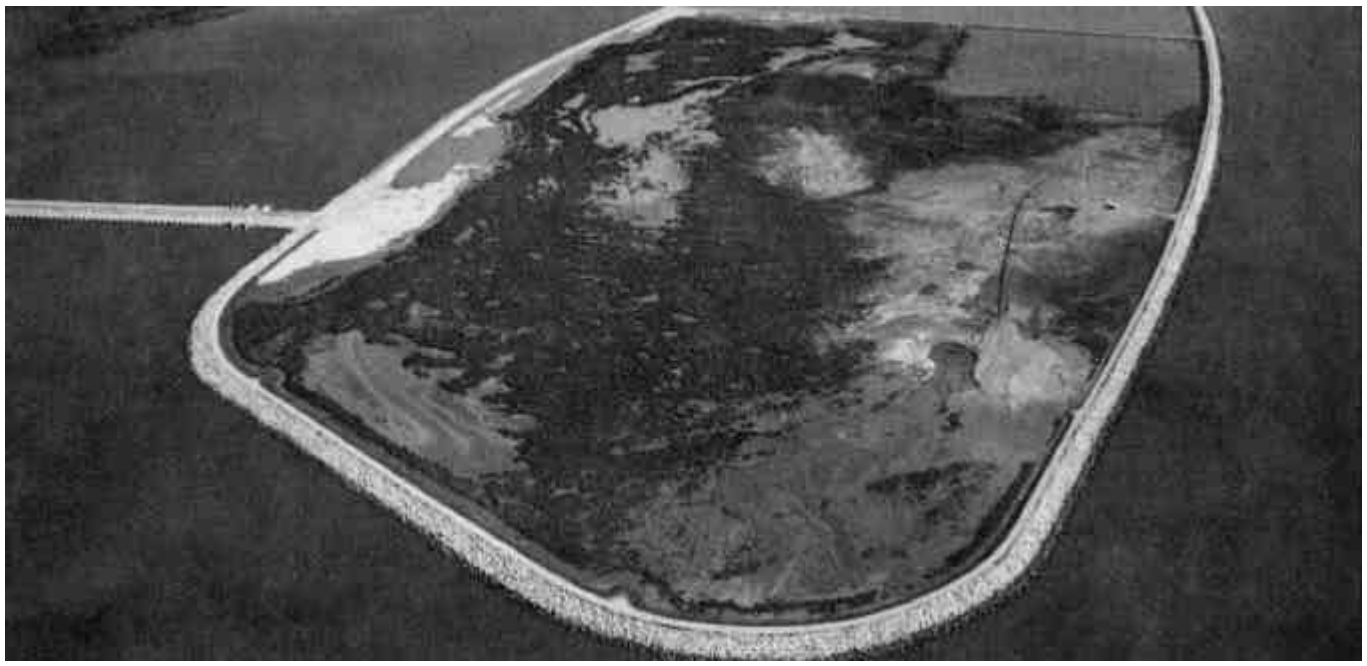
The "Sky, Land, Water, People Environmental Awareness" Information Exchange Bulletin was designed by the Corps of Engineers' Pittsburgh district.

Jurors comments: The jury commends the effort of promoting environmental awareness.

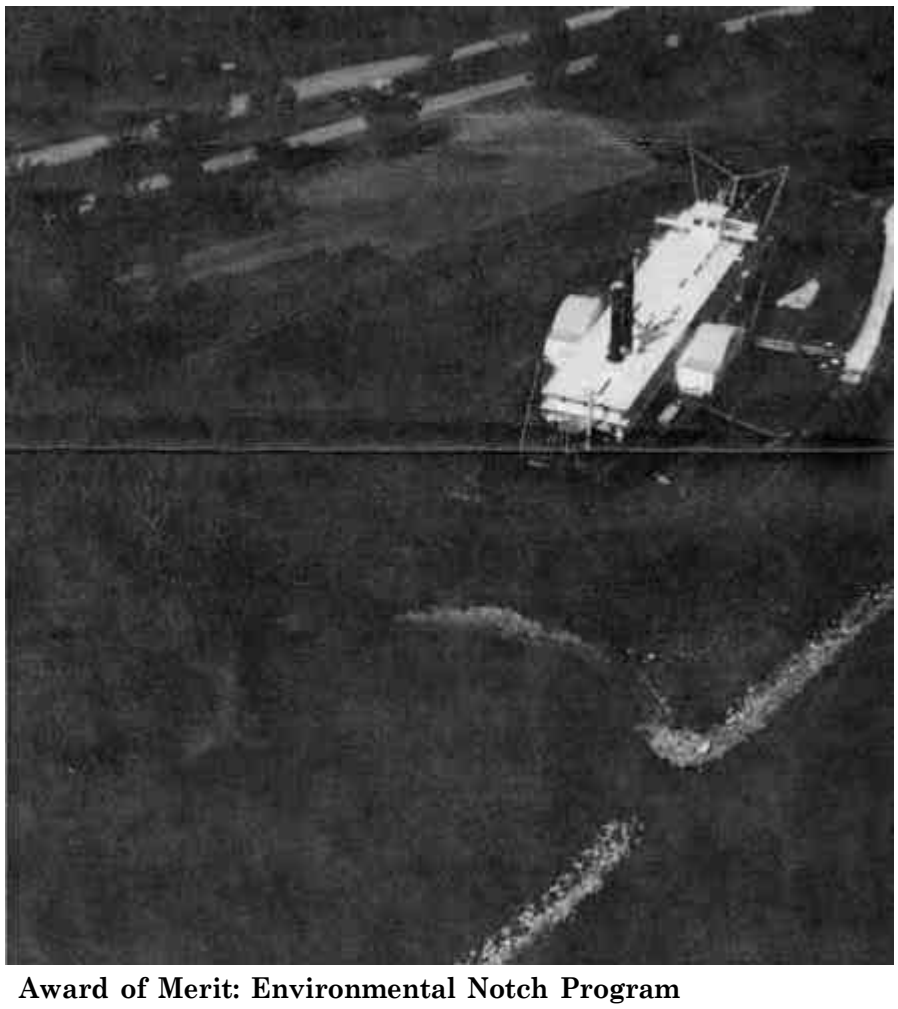
Jurors: Jack F. Kamman is an Atlantic Flyway field operations supervisor for Ducks Unlimited Inc.

Lydia W. Thomas is Associate Technical Director for MITRE Corporation in McLean, Va.

William L. Landahl has been Director of the Jackson County, Missouri Park and Recreation Department since 1959.



Honor Award: Confined Disposal Facility and Fresh Water Marsh Restoration



Award of Merit: Environmental Notch Program

Award of Merit: Little Goose Juvenile Fish Bypass Facility

Award of Merit: Ethnobotanical Mitigation Program

Architecture

Honor Award: The Jumma Mosque, King Faisal Naval Base project, located in Jeddah, Saudi Arabia, was designed by the Pasadena,. Calif., firm of Parsons-Basil, a joint venture.

Standard, economical construction materials were used in unique ways to add an artistic character. The building is constructed of blue ceramic-glazed concrete block, inside and out, offset by a white decorative-precast-concrete wall surrounding the walkways and courtyard. Traditional Islamic architectural forms are used for the roof, which has nine blue ceramic-tiled domes and a rounded arch covering of the mosque portico and courtyard entrance.

Design and construction was managed for the Corps of Engineers by the Middle East division.

Jurors comments: This worship center for the King Faisal Naval Base is simple in its structural and architectural concept, elegant in the formal composition of elements, restrained in detail, and classical in the refined use of light and shade.

Honor Award: Jumma Mosque, King Faisal Naval Base

Awards of Merit: The San Francisco Bay Model Visitor's Center, located in Sausalito, Marin County, Calif., features a waterfront entrance where the historic arched facade of the old warehouse has been contemporarily repeated. Visitors may view the Bay Model, which has for 23 years been a tool for scientists to study the natural ecosystem and complex hydrological forces at work in San Francisco Bay.

The Promontory Partnership, Palo Alto, Calif., designed the center. San Francisco-based consultant firms Chamberlain Painter Inc., EDAW Inc. and GKT Consulting Engineers Inc. were employed along with the Los Altos, Calif., firm of Adamson Associates. The design agency and owner of the center is the Corps of Engineers' San Francisco district.

Jurors comments: The design *resulted in a refined and consistent addition which significantly improved the exterior appearance. The building fits superbly with the environment. The interior is exciting and functional.*

The Royal Saudi Air Force Headquarters, located in Riyadh, Saudi Arabia, was designed by the firm of Smith, Hinchman and Grylls Associates Inc., Detroit, Mich. Design and construction for the project was managed for the Corps of Engineers by the Middle East division.

The $182 million complex of buildings situated on a 14-acre site includes the administrative building, a mosque and 60-man barracks.

Jurors comments: The challenge of dealing with such a large project was effectively met by providing two office rectangles separated by an elegantly designed garden court. The soft earth-pastel color facade is in complete harmony with the horizontal desert and *sky environment.*

Honorable Mention: The unaccompanied Officers Quarters at Fort Stewart, Ga., was designed by the firm of Lucas and Stubbs Associates Ltd., Charleston, S.C.

The facility provides living and support accommodations for locally assigned unaccompanied officers, visiting active duty officer personnel, ROTC students and visitors from higher headquarters.

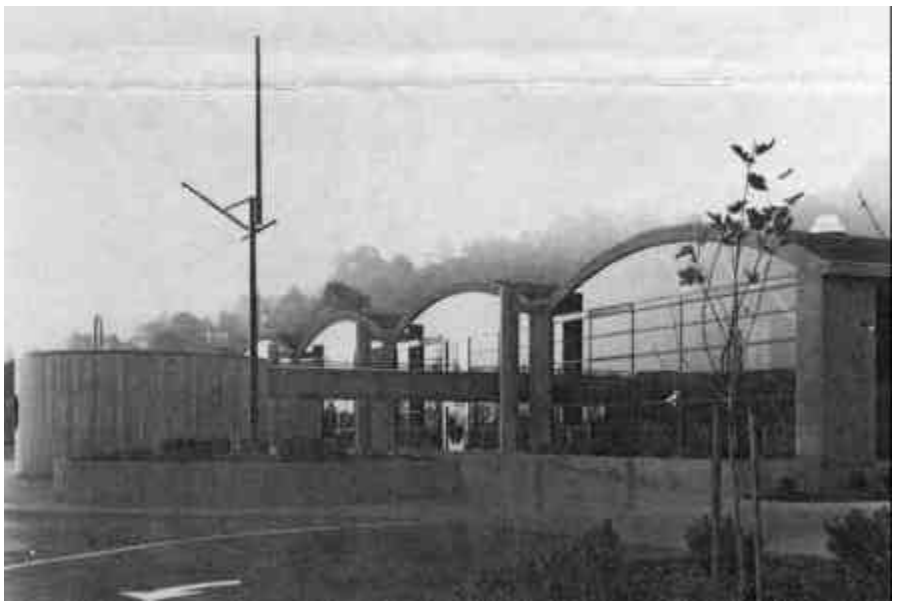
Design and construction were managed for the Corps of Engineers by the Savannah district.

Jurors comments: Three wings *are linked by a two-story lounge and storage element while a third level deck provides for exterior recreation. The brown masonry exterior unifies the building s composition.*

Jurors: Robert M. Lawrence is a partner in the Oklahoma City architectural firm of Lawrence, Lawrence and Flesher and president of the American Institute of Architects, Washington, D.C.

David A. McKinley Jr. is the partner in charge of design for the firm of Kirk, Wallace, McKinley, AIA and Associates, Architects and he is the president of The McKinley Architects, P.S.C.

Thomas H. Hodne Jr. is a professor at the University of Minnesota, School of Architecture and Landscape Architecture.



Award of Merit: San Francisco Bay Model Visitor s Center

Award of Merit: Royal Saudi Air Force Headquarters

Engineering

Awards of Merit: The Mount St. Helens Eruption Recovery is an ongoing project, the solutions of which are designed by the Corps of Engineers' Portland district.

The explosion and simultaneous landslide that occurred when Mount St. Helens erupted on May 18, 1980 released hot gases, pumice, ash and mudflows which devastated more than 150 square miles of forested land and lakes north and northwest of the mountain. The Corps of Engineers helped to restore navigation and flood protection to affected areas by dredging the Columbia River, dredging and excavating volcanic sediments in the Cowlitz and Toutle Rivers, building six miles of urban levees and two debris retaining structures, excavating exit channels for lakes, and seeding areas covered with volcanic materials to reduce erosion.

Jurors comments: This is an unusual category as there was no warning or impact statement filed before the occurrence. Complete mobilization was accomplished on short notice. This is an example of where the Corps of Engineers performs at its best to the benefit of all our citizens.

Award of Merit: Mount St. Helens Eruption Recovery

Award of Merit: Tioga-Hammond Lakes

The Tioga-Hammond Lakes project, designed by the firm of Gannett Fleming Corddry and Carpenter Inc. along with the Corps of Engineers' Baltimore district, consists of two earth and rockfill dams, a connecting channel between the lakes, one spillway and three outlet works.

It provides flood control, recreation and water quality control for the surrounding area of Tioga County, Pa. Major features associated with the project include a railroad relocation, two highway relocations, recreation facilities along the shores of the lakes, a levee around a community located at the upstream of Tioga Lake and acid mine drainage measures in the Tioga watershed.

Jurors comments: The engineering design took recognition of the flooding problems that can occur and yet under normal conditions confined the water of the polluted lake.

Honorable Mentions: The Dworshak Crack Repair was designed by the Corps of Engineers' Walla Walla district to reduce the flow of water through a crack in Monolith No. 35 at Dworshak Dam, Idaho that occurred on May 30, 1980. Final crack closure was accomplished with a filler material consisting of cinders covered by a permanent epoxy seal.

Jurors comments: The relatively inexpensive and quick solution helped to solve a problem that was major to the public, but actually did not affect the safety of the dam.

The Rehabilitation of Chesapeake City Bridge in Maryland is designed and owned by the Corps of Engineers' Philadelphia district. The Corps removed and replaced concrete deck using a high strength dense concrete, repaired corroded and damaged structural steel, and modified existing structural members by adding new bottom steel cover plates to the existing riveted girders.

Jurors comments: The engineering design allowed rehabilitation with continued traffic flow. The unique characteristic was how the engineers took into account the original design of the bridge and with strain cables and other modifications kept the integrity of the bridge during rehabilitation.

The Gantry Crane Repair was accomplished by the Corps of Engineers' Omaha district on Oct. 9, 1978. The repair was necessary after the intake gantry crane at Gavins Point Hydroelectric Power Plant was severely damaged by a windstorm on June 25, 1978.

A district Design Branch mechanical engineer proposed using hydraulic jacking struts to force the damaged members of the crane back into position. The restoration was successful, returning the gantry legs to within one-fourth inch of the original position.

Jurors comments: While not an engineered project, the individual who developed the common *sense engineered solution using existing materials and equipment should be commended.*

Jurors: Otto A. Tennant of Des Moines, Iowa, is president of the National Society of Professional Engineers and senior member of the Institute of Electrical and Electronic Engineers.

James R. Sims is professor of engineering at Rice University and president of the American Society of Civil Engineers. He lives in Houston, Texas.

Wilson V. Binger is president of the International Federation of Consulting Engineers and is partner and chairman of the firm of Tippetts-Abbett-McCarthy-Stratton in New York City.